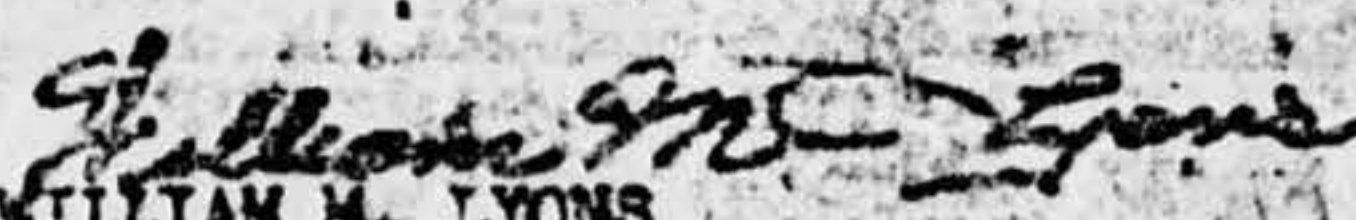


PROJECT 10073 RECORD CARD

1. DATE 9 December 1957		2. LOCATION Dothan, Alabama		12. CONCLUSIONS <input type="checkbox"/> Was Balloon <input type="checkbox"/> Probably Balloon <input type="checkbox"/> Possibly Balloon <input checked="" type="checkbox"/> Was Aircraft <input type="checkbox"/> Probably Aircraft <input type="checkbox"/> Possibly Aircraft <input type="checkbox"/> Was Astronomical <input checked="" type="checkbox"/> Probably Astronomical <input type="checkbox"/> Possibly Astronomical <input type="checkbox"/> Other _____ <input type="checkbox"/> Insufficient Data for Evaluation <input type="checkbox"/> Unknown	
3. DATE-TIME GROUP Local _____ GMT 10/1958 to 2005Z		4. TYPE OF OBSERVATION <input type="checkbox"/> Ground-Visual <input type="checkbox"/> Ground-Radar <input checked="" type="checkbox"/> Air-Visual <input type="checkbox"/> Air-Intercept Radar			
5. PHOTOS <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		6. SOURCE Military			
7. LENGTH OF OBSERVATION 7 minutes		8. NUMBER OF OBJECTS one		9. COURSE	
10. BRIEF SUMMARY OF SIGHTING One object shape and size of light as on aircraft or radio tower, color red. Bright red light faded to pink to white and back to red. Helicopter in flight in area.				11. COMMENTS Concur with reporting officer this probably was aircraft light or exhaust of aircraft.	

United States		IR-4-57	(Leave blank)
AIR INTELLIGENCE INFORMATION REPORT			
AREA REPORT CONCERNS Dothan, Alabama			
AGENCY OF ORIGIN U. S. Army Aviation Center Office of ACoS, G-2		DATE OF REPORT 11 Dec 57	
SOURCE OF INFORMATION Norman W Goodwin, Maj, US Army George E Thayer, Capt., US Army		DATE OF INFORMATION 9 Dec 57	
PREPARING OFFICER Union Hill, Capt, US Army		EVALUATION	
REFERENCES (Control number, direction, previous report, etc., as applicable) DAIR 3A15; AFR 200-2, 12 Aug 54			
SUBJECT Report of UFOB			
SUMMARY (Enter concise summary of report. Give significance in final one-sentence paragraph. List incidents at lower left. Begin text of report on AF Form 115a.) In compliance with AFR 200-2, the inclosed UFOB report is submitted. This report was mailed to this office by Hq U. S. Army Aviation Center, Office of the Assistant CoS, G-2, Fort Rucker, Alabama, and pertains to an unidentified Flying Object sighted while flying over Dothan, Alabama.			
<p style="text-align: right;">  WILLIAM M. LYONS Captain, USAF Chief, Intelligence Division, APOC </p> <p style="text-align: center;"> APPROVED: FOR THE COMMANDER: </p> <p style="text-align: right;"> DAVID M. JONES Colonel, USAF DCS/Operations Air Proving Ground Center Eglin Air Force Base, Florida </p> <p style="text-align: right; font-style: italic;"> This report is a summary of a number of cases. </p>			
1 UFOB Report (Army)			
COPIES TO: AFR 200-2 COPIES TO: AFR 200-2 COPIES TO: AFR 200-2			
WARNING: This document contains information that is classified as "Secret" under the provisions of the Espionage Laws, Title 18, U. S. C., Chapter 37, Section 793 and 794. It is to be controlled and its transmission or disclosure to unauthorized persons is prohibited by law.			

Thermoc

Headquarters
UNITED STATES ARMY AVIATION CENTER
Office of the AC of S, G2
Fort Rucker, Alabama

ACGI 000.72

11 December 1957

SUBJECT: Report on Unidentified Flying Object (RCS exempt paragraph 17c,
AR 335-15)

TO: Assistant Chief of Staff, G2
Headquarters Third United States Army
Fort McPherson, Georgia
ATTN: AJINT

1. A brief description of the object:

- a. Shape of a light as seen on an aircraft or radio tower.
- b. Size of light seen on flying aircraft.
- c. Color: Red.
- d. Number: One.
- e. Formation: N/A

f. Any discernible features or details: A bright red light which faded from red, to pink, to white, and back to red. ← *atmosphere here, change of wavelength*

g. Tail, trail, or exhaust, including size of same compared to size of object: None. *cause this.*

h. Sound: None.

i. Other pertinent or unusual features: None.

2. Description of course of object:

a. ~~What~~ first called the attention of observer to the object:
The fact that the light was fading from red to white.

b. Angle of elevation and azimuth of the object when first observed:
First sighted while flying over Dothan, Alabama at about 8,000 feet at 2400.
Object appeared to be 20 miles distance.

OFFICIAL USE ONLY

AR 120-16

CLUE!

11 December 1957

SUBJECT: Report on Unidentified Flying Object

c. Angle of elevation and azimuth of object upon disappearance: Last seen at 14,000 feet; object faded away to right at 330° very rapidly.

d. Description of flight path and maneuvers of object: Moved up and down 50 to 100 feet; approximately one time each minute. *← This is how often he moved*

e. Manner of disappearance of object: Faded out. *due to loss and gain of c/c as its path - is well as the other c/c.*

f. Length of time in sight: Approximately seven minutes. *its path - is well as the other c/c.*

3. Manner of observation:

a. Observed from aircraft.

b. Statement as to optical aids used and description thereof: *None. (over, possibly on autopilot) can be held on Part. only this type of a/c)*

c. If the sighting is made while airborne, give type aircraft, identification number, altitude, heading, speed, and home station: *1-23*
526187, 8,000 feet, heading 240° at 150 MPH, Home Station: Fort Rucker, Alabama.

4. Time of sighting:

a. Hour and date of sighting: 1958 hours to 2005 hours, 9 December 1957.

b. Light conditions: *Night.*

5. Location of observer: First observed while Observer was flying over Dothan, Alabama headed 240°. *← note, again*

6. Identifying information on all observers:

a. Civilian: N/A

b. Military: Norman W. Goodwin, Major, United States Army Aviation School, Chief, Plans Division, and Captain George E. Thayer, Executive Officer, Office of the Director of Instruction; Estimate of Reliability: A.

7. Any other unusual activity or condition meteorological, astronomical, or otherwise, which might account for the sighting: None.

8. Location of any air traffic in the area at time of sighting: Helicopter in flight over Osark.

9. Position title and comments of the preparing officer, including his preliminary analysis of the possible cause of the sighting: Captain Marion E. Hill, Assistant Chief of Staff, G2, United States Army Aviation Center, Fort Rucker, Alabama. It is the opinion of the preparing officer that the object was a light of an aircraft flying in the direction of Eglin Field. May possibly have been exhaust of aircraft.

*Concurrence! Good
for both sides, close
with by me*

ACGI 000.72

11 December 1957

SUBJECT: Report on Unidentified Flying Object

10. Existence of physical evidence, such as materials and photographs:
None.

11. Name, rank, and title of person receiving report and comments and actions: Garland B. Bradford, CWO, W-4, Assistant G2, United States Army Aviation Center, Fort Rucker, Alabama. No comments or actions.

12. Air Force Installation notified: Eglin Air Force Base furnished copy of report.

MARION E. HILL
Captain G3
AC of S G2

ASTRONOMY

Venus Is Christmas Star

A crescent moon and the planet Venus will be close together on December 24, making a brilliant pair that lights the Christmas sky.

By JAMES STOKLEY

► This year we will have a real Christmas star. The planet Venus, which has been increasing in prominence during the autumn, will be at its greatest brilliance on Dec. 25.

After the sky gets dark, around this date, Venus will be blazing in the southwest, until it follows the sun below the horizon, more than three hours later. But even this will not be the full extent of the display. On the 24th, the moon, in a crescent phase, three days after the new moon, will be just to the north of Venus. While the closest approach comes, for Americans, during daylight hours, they will still be close together that evening, Christmas eve, and will form a striking backdrop for the carolers singing their Yuletide greetings.

Venus is the only planet that can be seen well on December evenings. On the seventh, Mercury is farthest from the sun, and will remain briefly in the southwestern sky after the sun has set. If you have a very clear view in that direction, and look closely, you can get a glimpse of this innermost of all the planets, but this is not really a favorable time to see Mercury.

No planets appear on the accompanying maps of the December evening skies, for these show their appearances later in the evening, after Venus has set. They are drawn for about 10:00 p.m., your own kind of standard time, on Dec. 1, and an hour earlier at the middle of the month.

In the southeast there is now visible the brilliant array of stars which make the skies of the winter evening so beautiful.

Dog-Star Is Brightest

Brightest of these stars is Sirius, the dog star, part of Canis Major, the great dog, shown near the horizon. However, its low altitude causes a partial diminution of its light. Later in the night it climbs higher in the southern sky and is then even more conspicuous.

On the astronomer's scale of star brightnesses, Sirius is of magnitude minus 1.4, which means that it exceeds any other star that we can see in the nighttime sky. Compared to Venus, however, it is relatively faint, for the magnitude of that planet is minus 4.4. Venus now is nearly 16 times as bright as Sirius.

Above Sirius, Orion, the warrior, may be seen. In this group are two bright stars of the "first magnitude": Betelgeuse, to the left, and Rigel, a little lower and to the right. Between them is a row of three fainter stars that form Orion's belt.

Directly above Orion is Taurus, the bull,

with Aldebaran as the brightest star; distinctly red in hue, it is easy to identify.

To the left of Taurus is Auriga, the charioteer, with the star Capella, another of the first magnitude.

Descending from Capella, we come to Gemini, the twins, with the stars called Castor and Pollux, of which the latter is the brighter. And between Gemini and Canis Major stands Canis Minor, the lesser dog, with Procyon as the brightest star.

Over toward the southwest are found the remnants of the constellations of the autumn evenings. Near the horizon, as shown on the maps, or higher if it is earlier in the evening, is Vega, about all that is seen of Lyra, the lyre. Above and to the left is Cygnus, the swan, with Deneb. While Vega and Deneb both are first magnitude stars, their low altitude makes them look fainter.

About 3:30 a.m., at the beginning of December, and 1:30 a.m., at the end, another planet, Jupiter, appears in the southeast, in Virgo, the virgin. Its brightness now is just about the same as that of Sirius. Mars, of the second magnitude,

rises later, about two hours before the sun, in Libra, the scales.

If, on Christmas eve, when the crescent moon is standing nearby, you look at Venus through a telescope, you will find that it also is in a crescent phase.

Crescent Venus

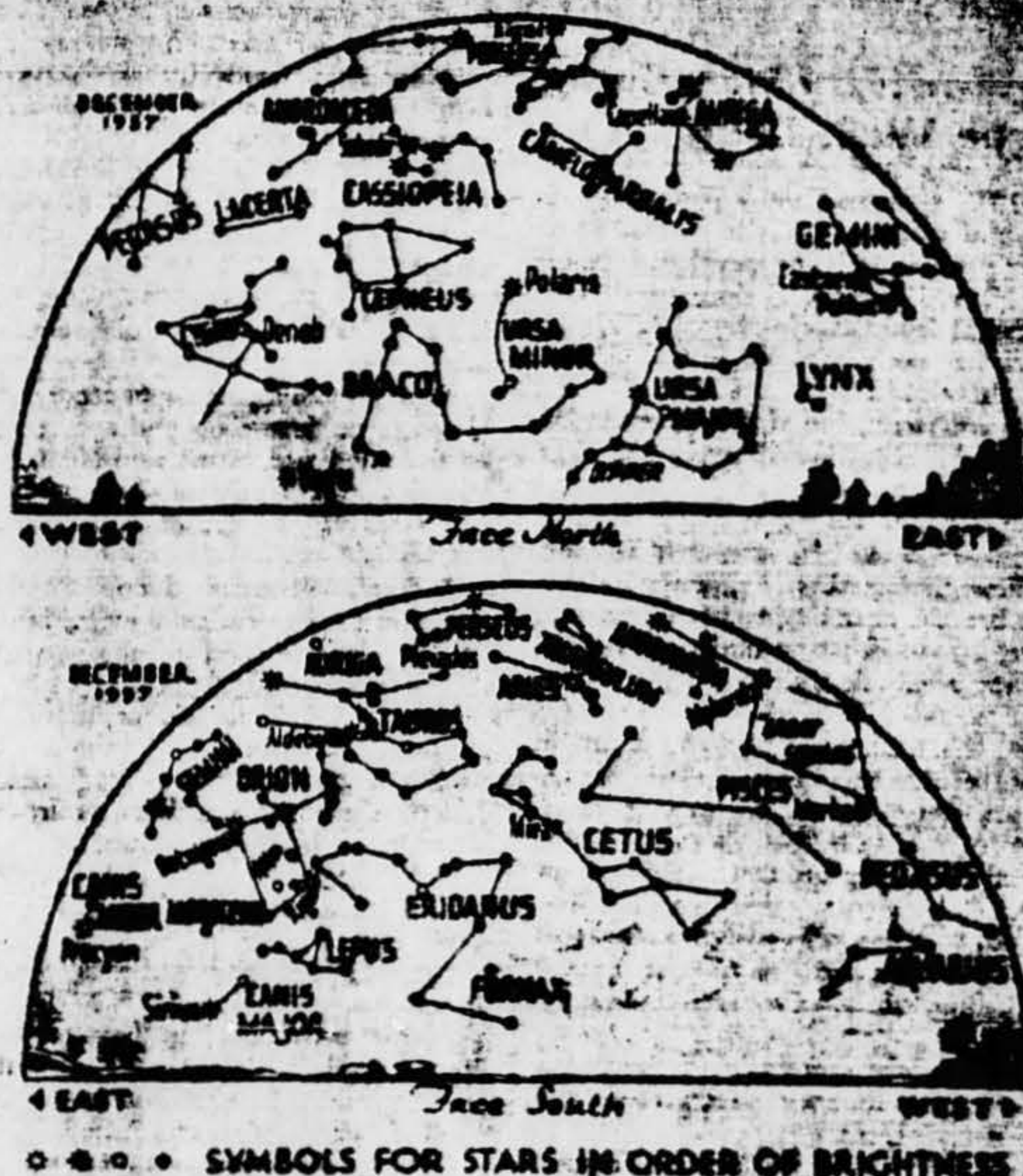
It will not be quite as thin a crescent as that of the moon, but more like the moon some two days later, or about five days after it is new.

The reason for the lunar phases is found in the fact that, as the moon revolves around the earth, it presents to our view varying amounts of its illuminated hemisphere.

At new, it is practically between the sun and us; the sunlit half is entirely turned away and we see nothing. But a few days later, as the moon swings eastward from the direction of the sun, it remains in the western sky for a while after the sun has set. A narrow sliver of the bright half then appears to us, as a crescent. Then, as it swings still farther away from the sun, half, three-quarters, and finally all, of the sunlit side is presented to us, bringing the full moon.

This takes about two weeks. During the next two weeks the changes occur in reverse order, and the moon is new once again.

Something similar happens to Venus.



Like the moon, it has no light of its own but is illuminated by the sun, so that one half is bright and the opposite half dark.

Last April 14 it was out beyond the sun, with the entire bright hemisphere turned earthwards. Since then it has been moving and is now coming between the earth and sun. Thus, most of its sunlit hemisphere is turned away, and we have a crescent phase.

On Jan. 28 it will be, nearly, directly between us and the sun, and this will correspond to new moon. After that it will become a crescent again, visible in the morning sky before sunrise.

Unlike the moon, Venus is always so far away that only through a telescope are its phases visible.

The phases of Venus differ from those of the moon in another respect.

As the moon travels around the earth, its distance does not change very greatly, only from about 221,000 miles to 253,000 miles.

Thus there is no great change in its apparent size, and the diameter of the full moon is about the same as when it is in a narrow crescent phase. But when Venus is full it is out far beyond the sun, about 160,000,000 miles away. Just before Christmas it will be less than 40,000,000 miles away, and on Jan. 28 its distance will be about 26,000,000 miles. Thus, as it gets near the "new" phase, it is much larger, seemingly, in the sky.

That is why it is brightest when a crescent. Although less than half of the bright side is visible to us, its proximity more than makes up for this, and the part we can see fills the largest area of the sky. Then it is at the greatest brilliancy.

Winter Arrives

On Dec. 21 the sun, which has apparently been traveling southward in the sky since last June, reaches its southernmost point. This is the winter solstice—the beginning of winter in the Northern Hemisphere—and it occurs at 9:49 p. m., EST.

At that moment the sun will be directly over a point near the eastern edge of the Ararat Desert, which is in Australia, on the border between Queensland and the Northern Territory. In Australia, and other southern countries, the sun will be high in the sky, marking summer's beginning.

Celestial Time Table for December

- Dec. EST
- 3 6:10 p.m. Algol (variable star in Perseus) at minimum brightness.
 - 7 1:16 a.m. Full moon.
 - 8 10:00 p.m. Saturn on far side of sun, distance 1,030,000,000 miles.
 - 13 early a.m. Geminid meteor shower, meteors apparently radiating from constellation of Gemini.
 - midnight Moon nearest, distance 130,100 miles.
 - 14 12:45 a.m. Moon in last quarter.
 - 16 12:57 p.m. Moon passes Jupiter.
 - 18 2:15 a.m. Algol at minimum.
 - 3:56 p.m. Moon passes Mars.
 - 20 11:04 p.m. Algol at minimum.
 - 22 12:13 a.m. New Moon.
 - 9:49 p.m. Winter commences in Northern Hemisphere.
 - 23 7:53 p.m. Algol at minimum.
 - 11:00 p.m. Venus at greatest brilliancy.
 - 24 1:27 p.m. Moon passes Venus.

27 11:00 p.m. Moon farthest, distance 251,300 miles.

28 11:52 p.m. Moon in first quarter.

Subtract one hour for CST, two hours for MST, and three for PST.

Science News Letter, November 23, 1957

FIREBALL OF 1957 DECEMBER 5

A.M.S. No. 2368

On this date at 10:09 p.m., E.S.T., a very bright fireball was seen from Philadelphia. A note in the Evening Bulletin was published asking for observations and eventually 20 were received. Long after, some newspaper clippings were sent in showing that the object was seen from several places in

— 15 —

North Carolina and Virginia but with no actual data. The fireball was in not, at the time. One of the 20, 1 of which were from the Philadelphia neighborhood, 2 from New Jersey and one from Delaware. The reason probably was that the wording of several indicated that it was a hopeless matter to secure angles from the observers. The clippings gave no names to contact. There is, however, almost unanimity that the path was horizontal. Then if the height of any one point on it could be well determined, by drawing circles with observers' positions as centers, a path could be determined. We did fix an approximate sub-beginning because 4 observers in or near Philadelphia saw it begin due south, also S15 at Marmora, N.J., and S8 in N.E. Philadelphia at $\alpha=354^\circ$, he giving a good diagram. The intersection of the last two gives the only chance for determining the sub-beginning point. S19 at Felton, Del., stated it was seen to west going north, from a window. S13 at Fork Union, Va., gives a diagram which in general cannot be interpreted

but does give $\alpha=203^\circ$. This crossing lines from S1 and S3 gives subendpoint approximately, using as stated our position circles. Frankly, it is a matter of judgment, after studying the diagram, exactly where the projected path was, but to satisfy its parallelism with the horizon, it could only be shifted parallel to itself, and so the derived radiant would not be affected. The heights H1 and H2 of course would be. That it had a disk is stated by 9 observers: a good drawing shows it elliptical in shape. The mean of three actual estimates gives the diameter 0.3 of Moon. Color estimates as usual vary, but the majority give blue-green-white, and the tail was orange-yellow. No sounds were noted. The object was unusually large and brilliant, but no estimates that can be turned into magnitudes were given. Some observers were indoors, some in cars, so the object must have been very bright to have attracted attention. As the azimuth of the radiant may have appreciable error, no orbit is calculated. The usual data follow.

Date	1957 December 5.62
Sidereal time at end point	44°
Beginning point	$\lambda=74^\circ 45'$, $\phi=38^\circ 00'$ at 94 km) 13
End point	$\lambda=77^\circ 25'$, $\phi=39^\circ 42'$ at 94 km) obs.
Length of path	365 km
Duration	5.06 ± 1.85 sec. 9 obs.
Velocity observed	72 km/sec
Radiant with curvature correction	$\alpha=307^\circ$, $h=-1^\circ$
Parabolic zenith correction	$=-2^\circ$
Radiant corrected	$\alpha=307^\circ$, $h=-3^\circ$
	$\alpha=111^\circ$, $\delta=-30^\circ$

We find nothing in Hoffmeister-Von Neissl Catalogue of Fireballs corresponding to this radiant.

10 - 15 DECEMBER 1957 SIGHTINGS

<u>DATE</u>	<u>LOCATION</u>	<u>OBSERVER</u>	<u>EVALUATION</u>
10	Los Angeles, California	[REDACTED]	Astro (METEOR)
10	- Portland, Maine	Military Air	Satellite (SPUTNIK)
10	- Konona, Wisconsin	State Police	Balloon
10	- Estacada, Oregon	[REDACTED]	Insufficient Data
10	- Oceanside, Long Island, New York	[REDACTED]	Astro (METEOR)
10-12	- Duncansville, Texas	Multi (PHOTOS)	Astro (VENUS)
11	- Quincy, Ohio (CASE MISSING)	Civilian	Aircraft
11	- Miles City, Montana	Military	Aircraft
11	- Lake City AFS, Tennessee	Military RADAR	Balloon
11	- Wayne, Michigan	[REDACTED]	Aircraft
11	- Continental Divide AFS, New Mexico	Military	Astro (METEOR)
11	- Parkersburg, West Virginia and Guthrie, Pa.	Military Air & Radar	1. Astro (MOON) 2. Radar (INVERSION)
11	- and Guthrie, Pennsylvania	Military Air & Radar	1. Mirage 2. Radar (INVERSION)
12	- Ellsworth AFB, South Dakota	Military	Astro (METEOR)
12	- Great Neck, Long Island, New York	[REDACTED] (PHOTO/N.R.)	Insufficient Data
12-15	- Misawa, Hokkaido, Japan	Military Air Military RADAR Photo Analysis	1. Astro (VENUS) 2. Radar (ANOMALOUS PROP) 3. Insufficient Data
13	- Canton, Ohio (CASE MISSING)	Military	Insufficient Data
13	- English, Indiana (CASE MISSING)	Civilian	Insufficient Data
13	- Col Anahuac, Mexico	[REDACTED]	UNIDENTIFIED
13	- Chase Field, Beeville, Texas	Military Air	Astro (METEOR)
13	- S Weymouth, New Jersey	[REDACTED]	Astro (METEOR)
13	- Oak Harbor, Washington	[REDACTED]	Aircraft
13	- St Louis, Missouri	[REDACTED]	Astro (METEOR)
13-14	- Catalgazi/Kimli, Turkey	5-6 Fishermen	Astro (METEOR)
14	- Albany, Oregon	[REDACTED]	Insufficient Data
14	- Dayton, Ohio	Civilian	Astro (VENUS)
15	- Englewood, Colorado (CASE MISSING)	Civilian	Insufficient Data
15	- Elmendorf AFB, Alaska	Military	Astro (METEOR)

ADDITIONAL REPORTED SIGHTINGS (NOT CASES)

<u>DATE</u>	<u>LOCATION</u>	<u>SOURCE</u>	<u>EVALUATION</u>
Dec	Universe	Science News Ltr	/
12	Chatham, Canada	Newsclipping	
13	- Collinsville, Illinois	Newsclipping	